CLAIMS

What is claimed is:

1. A projector lens system comprising, from a screen side, a first lens unit having negative refractive power and a second lens unit having positive refractive power,

wherein said first lens unit includes a negative meniscus lens element being a plastic lens element, being convex to the screen side and having an aspherical surface,

said second lens unit includes: a negative lens element being a plastic lens element and having an aspherical surface; and at least two or more positive lens elements having anomalous dispersibility and a temperature coefficient of a negative refractive index, and

an image plane fluctuation by a temperature change due to a temperature coefficient of a negative refractive index of the plastic lens elements of said first and second lens units is corrected by the temperature coefficient of the predetermined negative refractive index of said positive lens elements.

2. A projector lens system comprising, from a screen side, a first lens unit having negative refractive power and a second lens unit having positive refractive power,

wherein said first lens unit includes a plurality of

negative meniscus lens elements including at least one negative meniscus lens element being a plastic lens element of a predetermined refractive index, being convex to the screen side and having an aspherical surface,

said second lens unit includes: an aperture stop; a negative lens element being a plastic lens element and having an aspherical surface; and at least two or more positive lens elements having anomalous dispersibility and a temperature coefficient of a negative refractive index,

the plastic lens element of said first lens unit is arranged on a side of said aperture stop, and

an image plane fluctuation by a temperature change due to a temperature coefficient of a refractive index of the plastic lens elements of said first and second lens units is corrected by the temperature coefficient of the predetermined negative refractive index of said positive lens elements.

3. A projector lens system comprising, from a screen side to a projector lens side, a first lens unit having negative refractive power and a second lens unit having positive refractive power,

wherein said first lens unit includes a negative meniscus lens element being made of plastic, being convex to the screen side and having an aspherical surface,

said second lens unit includes: an aperture stop; and a negative lens element being made of plastic and having an aspherical surface, and

the following conditions are satisfied:

$$-5 < f1p/f < -3$$

$$-25 < f2p/f < -15$$

where f is an overall focal length of the lens system, f1p is a focal length of the plastic lens element in the first lens unit, and f2p is a focal length of the plastic lens element in the second lens unit.

4. A projector lens system according to claim 3, wherein a positive lens element used in the second lens unit comprises at least two or more glass elements satisfying the following condition:

$$0.03 < P_{g,F}-(0.6482-0.0018\nu d)$$

where $P_{g,F}=(ng-nF)/(nF-nC)$, $\nu d=(nd-1)/(nF-nC)$, ng is a refractive index to a g-line (wavelength 435.84 nm), nF is a refractive index to an F-line (wavelength 486.13 nm), nC is a refractive index to a C-line (wavelength 656.28 nm), and nd is a refractive index to a d-line (wavelength 587.56 nm).

5. A projector lens system according to claim 3, wherein a positive lens element used in said second

lens unit comprises at least two or more glass elements satisfying the following condition:

$$\Delta n/\Delta T < -5\times10^{-6}$$

where $\Delta n/\Delta T$ is a temperature coefficient of a refractive index.

6. A projector lens system according to claim 3, wherein said first lens unit includes two negative meniscus lens elements convex to the screen side.

7. A projector lens system according to claim 6, wherein the plastic lens element used in said first lens unit is arranged on a side of the aperture stop.

8. A projector lens system according to claim 3, wherein the following condition is satisfied:

$$2.5 < f2ep/f < 5.0$$

where f2ep is a focal length of a positive lens element included in the second lens unit and f is the overall focal length of the lens system.

9. A projector lens system according to claim 3, wherein the following condition is satisfied:

$$-5.0 < f2gn/f < -2.0$$

wherein f2gn is a focal length of a negative lens element

made of glass and included in the second lens unit and f is the overall focal length of the lens system.

10. A rear-projection-type projector having a projector lens system, wherein as the projector lens system, the projector lens system according to any one of claims 1 to 3 is used.